Case No.: 21546YP Page No.: 2

## **Listing of Claims**

The listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended) A compound of formula (I):

$$R^3$$
 $NH_2$ 
 $NH_2$ 
 $R^3$ 
 $R^1$ 
 $R^1$ 

wherein:

X is O or NH;

Y is CH or N;

R<sup>1</sup> is (1) aryl selected from the group consisting of phenyl and napthyl, or

(2) heterocyclyl selected from the group consisting of piperazinyl, piperidinyl, pyrrolidinyl, pyrazinyl, dihydropyrazinyl, pyrazolyl, dihydropyrazolyl, pyridazinyl, pyridyl, dihydropyridinyl, pyrimidinyl, dihydropyrimidinyl, pyrrolyl, dihydropyrrolyl, tetrazolyl, dihydrotetrazolyl, furanyl, dihydrofuranyl, tetrahydrofuranyl, imidazolyl, dihydroimidazolyl, triazinyl, pyranyl, tetrahydropyranyl, thiazolyl, thienyl, dihydrothienyl, thiophenyl, triazolyl, dihydrotriazolyl, morpholinyl, thiomorpholinyl, dihydrothiadiazolyl, tetrahydrothienyl, oxazolyl, isoxazolyl, thiazolyl, oxadiazolyl, indolyl, quinolinyl, isoquinolinyl, benzimidazolyl and benzoxazolyl,

wherein said aryl or heterocyclyl is unsubstituted or substituted with one or more

- (a) halo,
- (b) -C<sub>1</sub>-6alkyl,
- (c) -C2-6 alkenyl,
- (d) -C2-6 alkynyl,
- (e) -OH,
- (f) -CN, or
- (g) -O-C<sub>1-6</sub>alkyl;

Case No.: 21546YP Page No.: 3

R<sup>2</sup> is selected from the group consisting of:

- (1)  $R^4$ -S(O)<sub>2</sub>N( $R^7$ )-, wherein  $R^4$  is C<sub>1-6</sub>alkyl, wherein said alkyl is unsubstituted or substituted with one or more
  - (a) halo,
  - (b) -C<sub>1-6</sub>alkyl,
  - (c) -OH,
  - (d) -CN, or
  - (e) -O-C<sub>1-6</sub>alkyl; and

R<sup>7</sup> is selected from the group consisting of

- (a) hydrogen, and
- (b)  $-C_{1-6}$ alkyl,

wherein said alkyl is unsubstituted or substituted with one or more

- (i) halo,
- (ii) -C<sub>1</sub>-6alkyl,
- (iii) -OH,
- (iv) -CN, or
- (v) -O-C<sub>1-6</sub>alkyl;

(2)

(3)

R<sup>3</sup> is selected from the group consisting of:

Page No.: 4

(a) 
$$R^{6b}$$
 $R^{6a}$ 
 $R^{5}$ 
 $R^{10}$ 
 $R^{10}$ 

wherein R<sup>5</sup> is C<sub>1-6</sub>alkyl, C<sub>2-6</sub> alkenyl or C<sub>2-6</sub> alkynyl;

R6a, R6b, and R6c are independently selected from the group consisting of:

- (1) hydrogen,
- (2) halo,
- (3) -C<sub>1</sub>-6alkyl,
- (4) -C2-6 alkenyl,
- (5) -C2-6 alkynyl,
- (6) -OH,
- (7) -CN, and
- (8) -O-C<sub>1-6</sub>alkyl;

R9 and R10 are independently selected from the group consisting of:

- (1) hydrogen, and
- (2) C<sub>1-6</sub>alkyl,
- (3) -C2-6 alkenyl, and
- (4) -C2-6 alkynyl,

or  $R^9$  and  $R^{10}$  are joined together with the nitrogen atom to which they are attached to form a pyrrolidine ring, which is optionally substituted with

- (a) C<sub>1-6</sub>alkyl,
- (b) -C2-6 alkenyl,
- (c) -C2-6 alkynyl,
- (d) (CH<sub>2</sub>)<sub>n</sub>-phenyl, and
- (e) (CH<sub>2</sub>)<sub>n</sub>-furanyl;

wherein said alkyl, phenyl and furanyl are unsubstituted or substituted with one or more

- i) halo,
- ii) -C<sub>1-6</sub>alkyl,

Case No.: 21546YP Page No.: 5

. ...

iii) -OH,

iv) -CN, or

v) -O-C<sub>1-6</sub>alkyl; and

R<sup>11</sup> is selected from the group consisting of

- (1) CH-,
- (2) -O-, and
- (3) -NH-,

provided that when R<sup>11</sup> is -CH- the dotted line forms a bond and when R<sup>11</sup> is -O- or -NH- the dotted line is absent;

R<sup>12</sup> is hydrogen, C<sub>1-6</sub> alkyl, C<sub>2-6</sub> alkenyl or C<sub>2-6</sub> alkynyl;

m is 1 or 2;

n is 0, 1, 2, 3 or 4;

p is 1, 2, 3 or 4;

and pharmaceutically acceptable salts thereof.

Claim 2 (Original) The compound of Claim 1, wherein m is 1 and R<sup>1</sup> is phenyl unsubstituted or substituted with one or more chloro or fluoro.

Claim 3 (Original) The compound of Claim 1, wherein m is 2 and R<sup>1</sup> is phenyl unsubstituted or substituted with one or more chloro or fluoro.

Claim 4 (Original) The compound of Claim 1, wherein m is 1 and R<sup>1</sup> is thiophenyl.

Claim 5 (Original) The compound of Claim 1, wherein  $R^2$  is  $(R^4)$ - $S(O)_2N(R^7)$ - and  $R^7$  is  $C_{1-6}$  alkyl.

Claim 6 (Original) The compound of Claim 5 wherein  $R^4$  and  $R^7$  are each methyl.

Claim 7 (Original) The compound of Claim 1, wherein R<sup>2</sup> is

Case No.: 21546YP Page No.: 6

Claim 8 (Original) The compound of Claim 1 wherein R<sup>3</sup> is

Claim 9 (Original) The compound of Claim 8 wherein R<sup>5</sup> is methyl.

Claims 10-11 (Cancelled)

Claim 12 (Original) The compound of Claim 1 wherein R<sup>3</sup> is

and  $R^9$  and  $R^{10}$  are joined together with the nitrogen atom to which they are attached to form a pyrrolidine ring which is unsubstituted or substituted with

- (a) C<sub>1-6</sub>alkyl,
- (b) (CH<sub>2</sub>)<sub>n</sub>-phenyl, or
- (c) (CH<sub>2</sub>)<sub>n</sub>-furanyl.

Claim 13 (Original) The compound of Claim 12 wherein  $R^9$  and  $R^{10}$  are joined together with the nitrogen atom to which they are attached to form a pyrrolidine ring which is substituted with –  $(CH_2)_n$ -furanyl wherein n is 0.

Claim 14 (Original) The compound of claim 13, wherein R<sup>3</sup> is

Case No.: 21546YP Page No.: 7

Claim 15 (Original) The compound of Claim 1 wherein R3 is

Claim 16 (Original) The compound of Claim 1 of formula II:

$$R^{6c}$$
 $R^{6b}$ 
 $R^{6a}$ 
 $R^{5}$ 
 $R^{5}$ 
 $R^{5}$ 
 $R^{6a}$ 
 $R^{5}$ 
 $R^{5}$ 
 $R^{6a}$ 
 $R^{5}$ 
 $R^{5}$ 
 $R^{5}$ 
 $R^{5}$ 
 $R^{5}$ 
 $R^{5}$ 
 $R^{5}$ 

wherein X, Y, R<sup>1</sup>, R<sup>2</sup>, R<sup>5</sup>, R<sup>6a</sup>, R<sup>6b</sup>, R<sup>6c</sup> and m are as defined in Claim 1.

Claim 17 (original) The compound of Claim 1 of formula (III):

wherein X, Y,  $R^1$ ,  $R^2$ ,  $R^9$ ,  $R^{10}$  and m are as defined in Claim 1.

Claim 18 (Original) The compound of Claim 1 of formula (IV):

$$R^{12}$$
 $R^{11}$ 
 $NH_2$ 
 $R^1$ 
 $NH_2$ 
 $R^1$ 
 $NH_2$ 
 $R^1$ 
 $R^1$ 
 $R^1$ 
 $R^1$ 
 $R^2$ 
 $R^1$ 
 $R^2$ 
 $R^1$ 
 $R^2$ 
 $R$ 

wherein  $X,\,Y,\,R^1$  ,  $R^2$  ,  $R^{11},\,R^{12}$  and m are as defined in Claim 1.

Claim 19 (Currently Amended) The compound of Claim 1 which is selected from the group consisting of:

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

$$\begin{array}{c|c} & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

$$\begin{array}{c|c} & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

and pharmaceutically acceptable salts thereof.

Claim 20 (Cancelled)

Claim 21 (Original) A pharmaceutical composition comprising an effective amount of a compound of Claim 1 and a pharmaceutically acceptable carrier.

Claim 22 (Cancelled)

Claim 23 (Original) A method for treating Alzheimer's disease in a patient in need thereof comprising administering to the patient an effective amount of a compound of Claim 1.

Claim 24 (Cancelled)